

FIG. 1

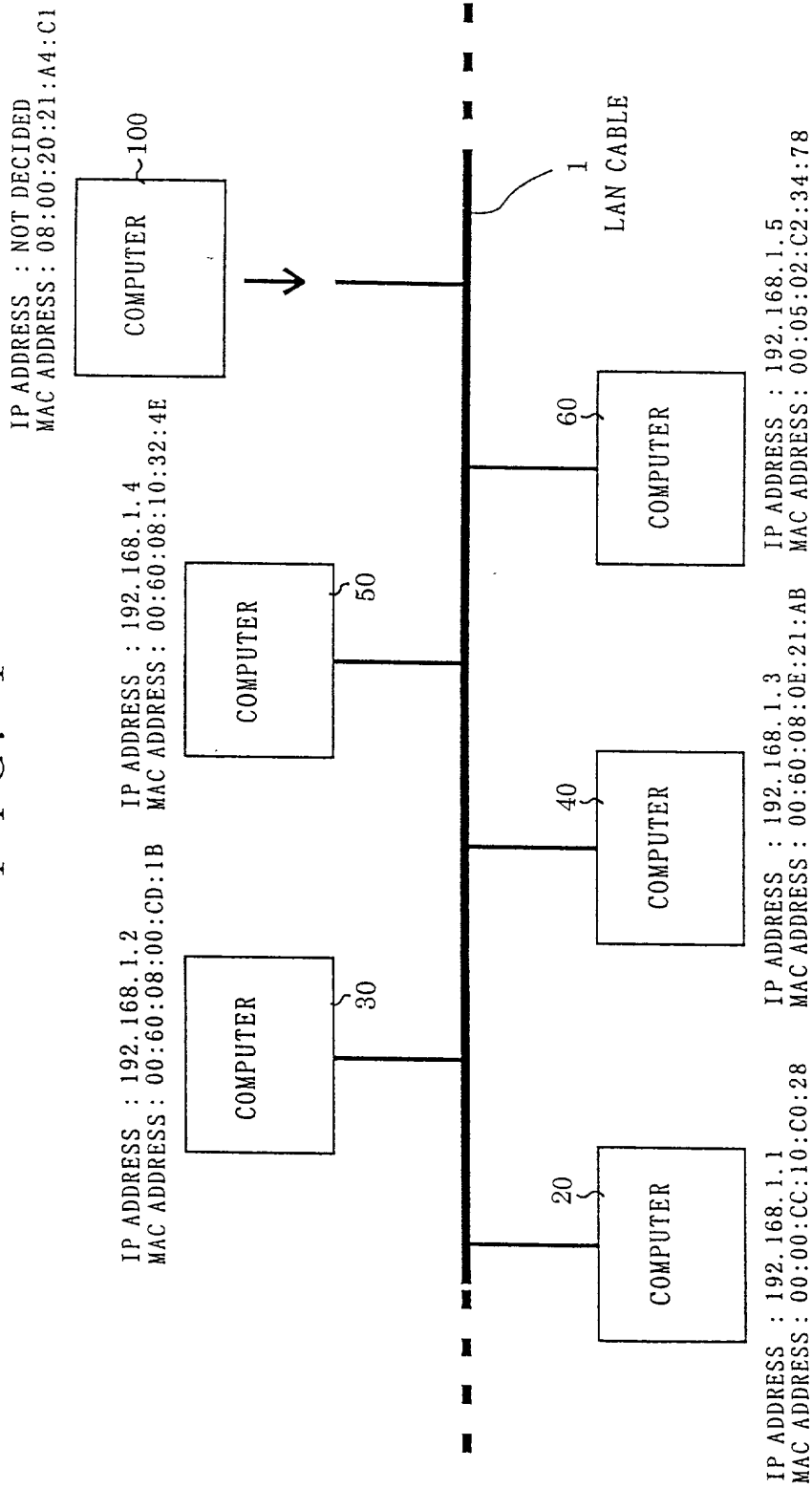


FIG. 2

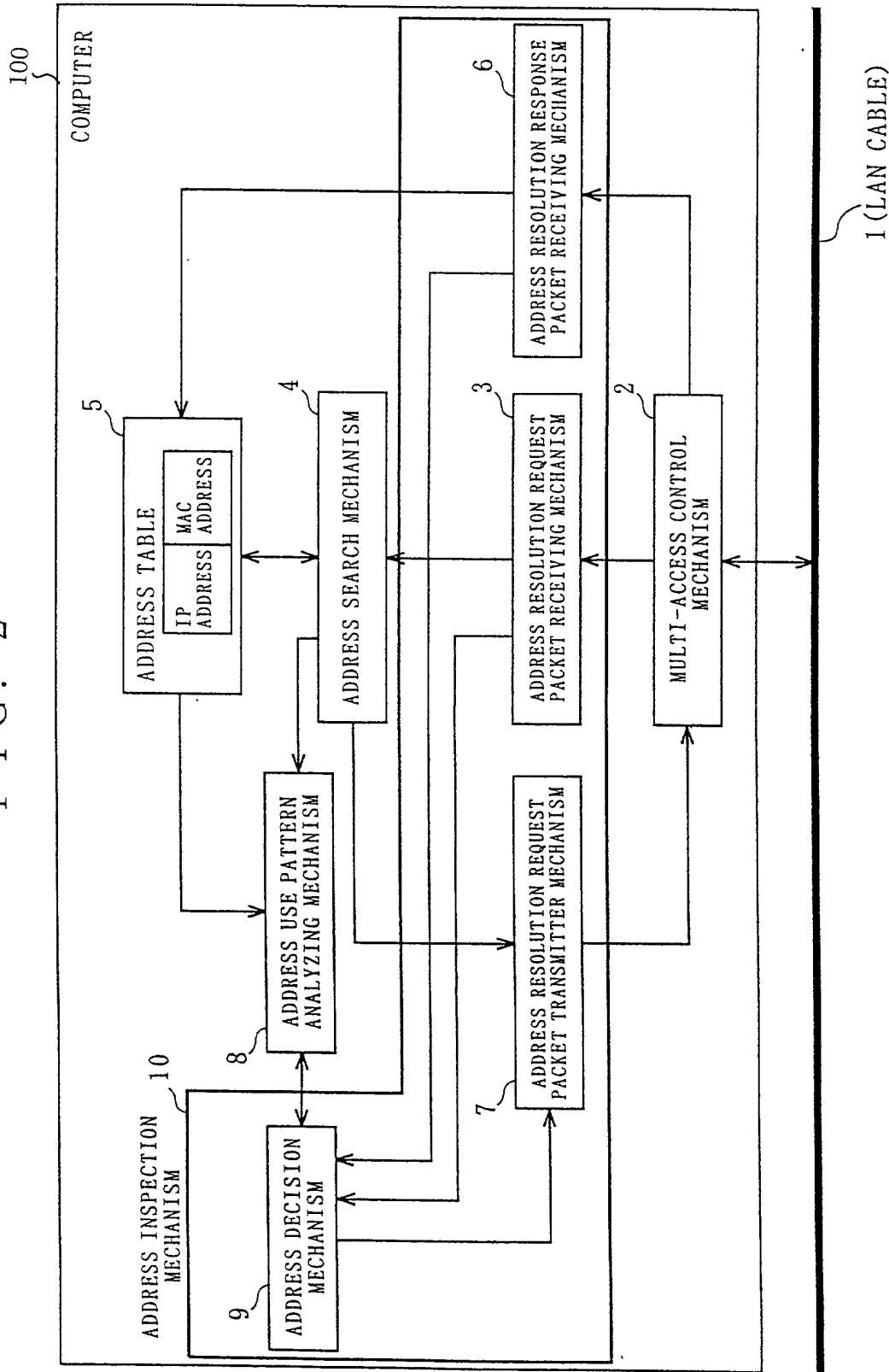


FIG. 3

ADDRESS TABLE

IP ADDRESS	MAC ADDRESS
192.168.1.1	00:00:0C:10:00:28
192.168.1.2	00:60:08:00:C0:1B
.	.
.	.
.	.
.	.
.	.
192.168.1.253	00:05:C2:02:18:71
192.168.1.254	00:50:32:4B:2C:01

FIG. 4

ADDRESS RESOLUTION REQUEST PACKET

IP ADDRESS	192.168.1.000
MAC ADDRESS	△△:△△:△△:△△:△△:△△
ACQUISITION REQUESTED IP ADDRESS	192.168.1.●●●

FIG. 5

ADDRESS RESOLUTION RESPONSE PACKET

(WHEN ACQUISITION REQUESTED IP ADDRESS OF RECEIVED ADDRESS RESOLUTION REQUEST PACKET IS COINCIDENT WITH ITS OWN IP ADDRESS, ADDRESS RESOLUTION RESPONSE PACKET IS SENT TO TRANSMITTER.)

ITS OWN IP ADDRESS	192.168.1.000
ITS OWN MAC ADDRESS	△△:△△:△△:△△:△△:△△

FIG. 6

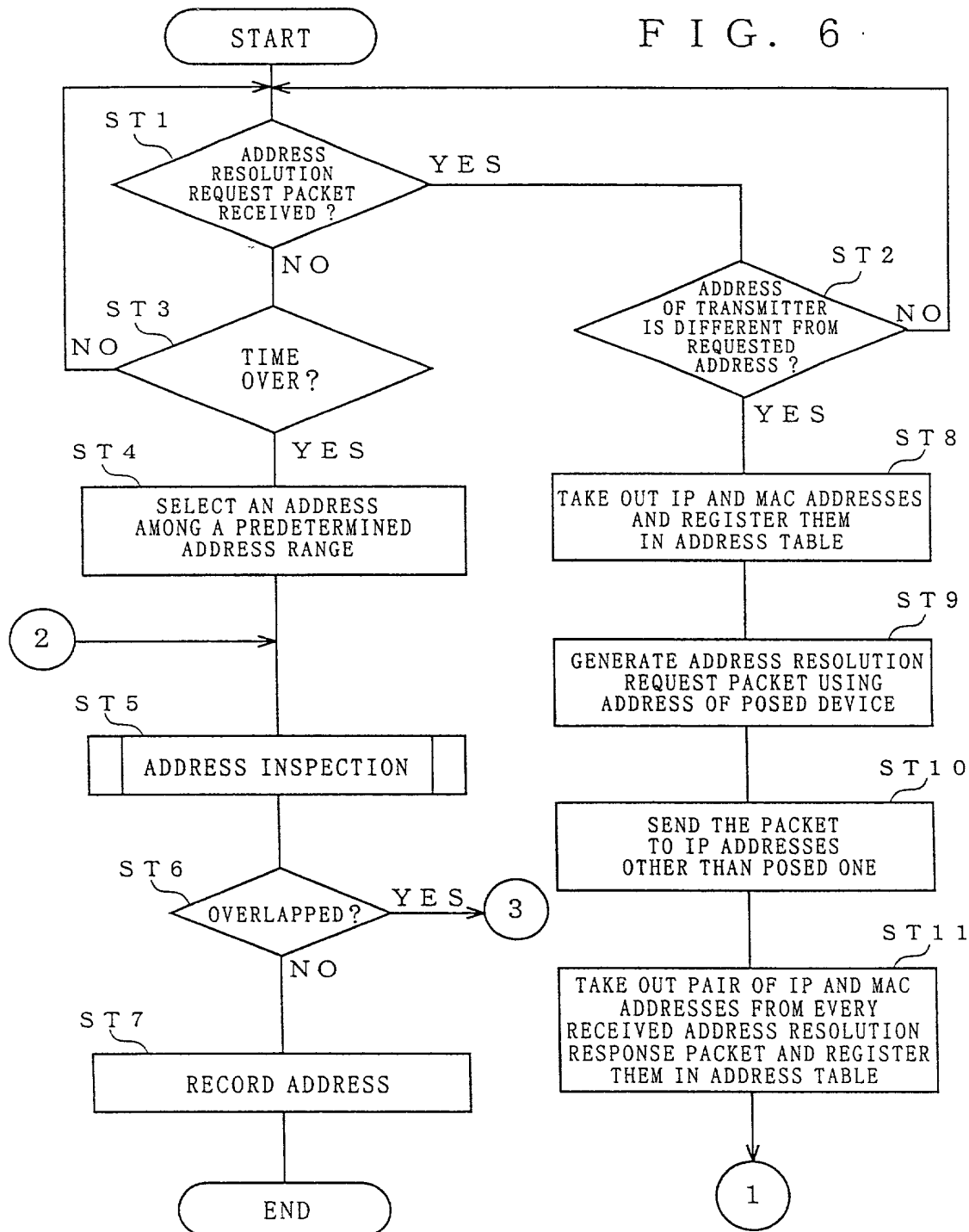


FIG. 7

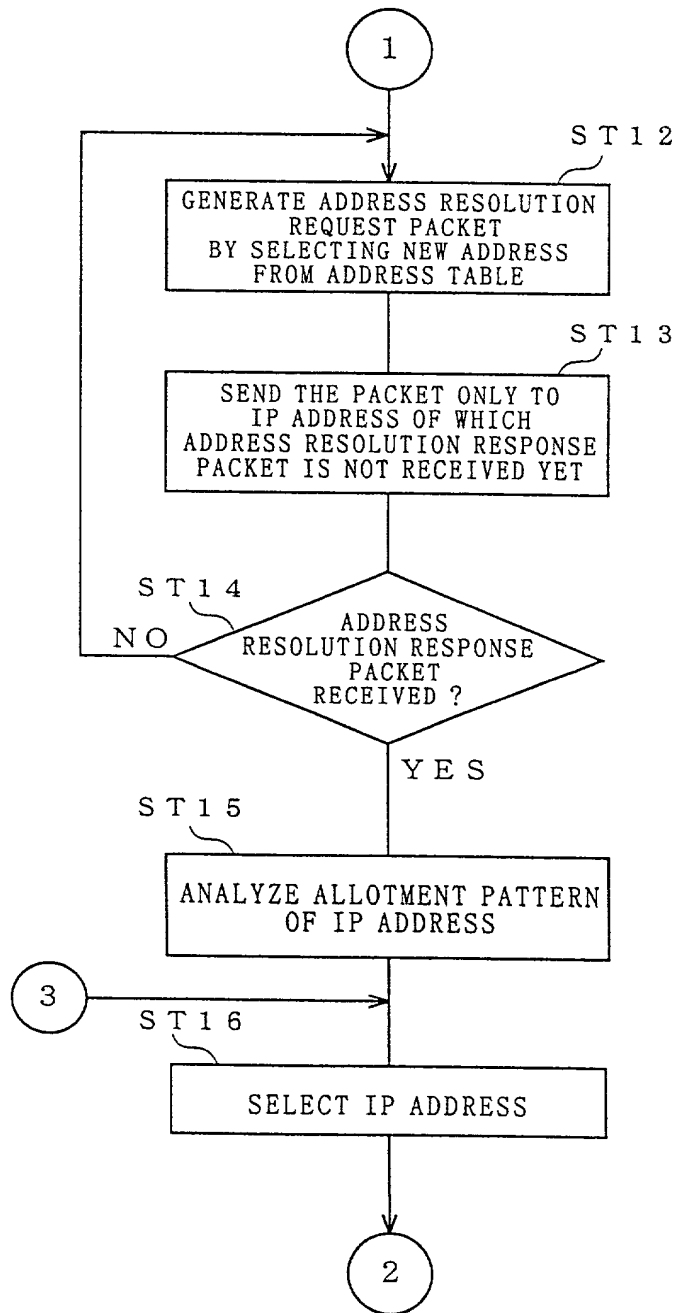


FIG. 7

FIG. 8

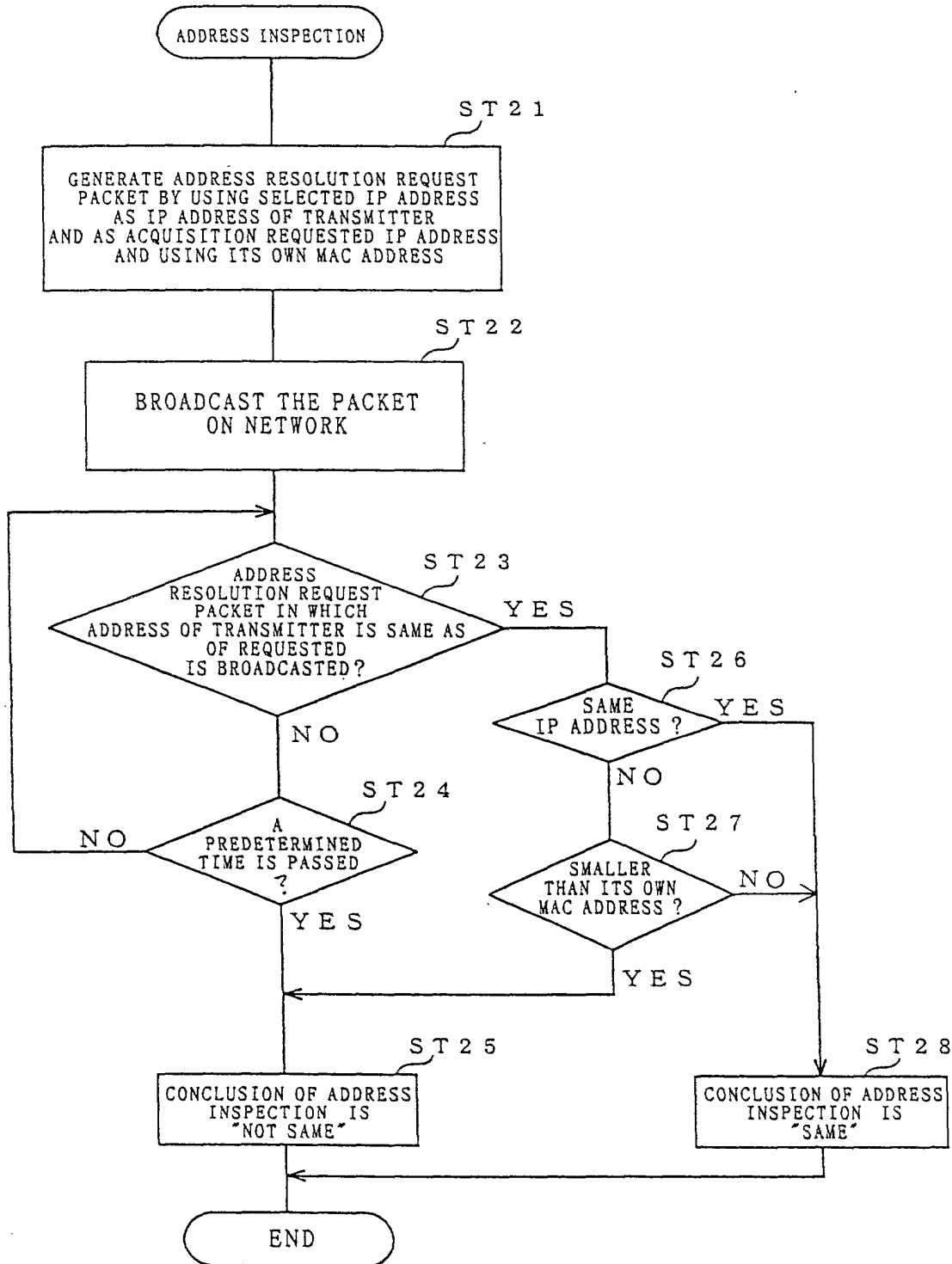


FIG. 9

	DECIMAL NUMBER	BINARY NUMBER
IP ADDRESS	192.168.0.1	11000000.10101000.00000000.00000001
NET MASK	255.255.255.0	11111111.11111111.11111111.00000000

FIG. 10

CLASS	DEFAULT MASK (DECIMAL NUMBER)	CORRESPONDING IP ADDRESS RANGE	HOSTS PER NETWORK
A	255.0.0.0	1.0.0.0 ~ 126.0.0.0	16000000
B	255.255.0.0	128.1.0.0 ~ 191.254.0.0	65534
C	255.255.255.0	192.0.1.0 ~ 223.255.254.0	254

FIG. 11

COLLECTED IP ADDRESS (EXAMPLES)

DECIMAL NUMBER	BINARY NUMBER
192.168.0.1	11000000.10101000.00000000.00000001
192.168.0.4	11000000.10101000.00000000.00000100
192.168.0.6	11000000.10101000.00000000.00000110
192.168.0.10	11000000.10101000.00000000.00001010

FIG. 12

(1) Sectioned at 1-bit from the right

NUMBERS TO BE COMPARED	1(BIT)
11000000.10101000.00000000.00000000	
11000000.10101000.00000000.00000010	
11000000.10101000.00000000.00000011	
11000000.10101000.00000000.0000101	

→ IP NETWORK ADDRESS AND SUB-NET MASK
CAN'T BE DECIDED.

(2) Sectioned at 2-bit from the right

NUMBERS TO BE COMPARED	2(BIT)
11000000.10101000.00000000.00000000	
11000000.10101000.00000000.0000001	
11000000.10101000.00000000.000001	
11000000.10101000.00000000.000010	

→ IP NETWORK ADDRESS AND SUB-NET MASK
CAN'T BE DECIDED.

(3) Sectioned at 3-bit from the right

NUMBERS TO BE COMPARED	3(BIT)
11000000.10101000.00000000.000000	
11000000.10101000.00000000.000000	
11000000.10101000.00000000.000000	
11000000.10101000.00000000.00001	

→ IP NETWORK ADDRESS AND SUB-NET MASK
CAN'T BE DECIDED.

(4) Sectioned at 4-bit from the right

NUMBERS TO BE COMPARED	4(BIT)
11000000.10101000.00000000.0000	
11000000.10101000.00000000.0000	
11000000.10101000.00000000.0000	
11000000.10101000.00000000.0000	



	DECIMAL NUMBER	BINARY NUMBER
IP NETWORK ADDRESS	192.168.0.0	11000000.10101000.00000000.00000000
SUB-NET MASK	255.255.255.240	11111111.11111111.11111111.11110000

(5) Sectioned at 5-bit from the right

NUMBERS TO BE COMPARED	5(BIT)
11000000.10101000.00000000.000	
11000000.10101000.00000000.000	
11000000.10101000.00000000.000	
11000000.10101000.00000000.000	

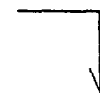


	DECIMAL NUMBER	BINARY NUMBER
IP NETWORK ADDRESS	192.168.0.0	11000000.10101000.00000000.00000000
SUB-NET MASK	255.255.255.224	11111111.11111111.11111111.11100000

⋮

(32) Sectioned at 32-bit from the right

NUMBERS TO BE COMPARED	



	DECIMAL NUMBER	BINARY NUMBER
IP NETWORK ADDRESS	0.0.0.0	00000000.00000000.00000000.00000000
SUB-NET MASK	0.0.0.0	00000000.00000000.00000000.00000000

FIG. 12